

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. §§ 1251 et seq.; the “CWA”), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§ 26-53),

**General Electric Company  
159 Plastics Avenue  
Pittsfield, MA 01201**

is authorized to discharge from the facility located at

**General Electric Company  
159 Plastics Avenue  
Pittsfield, MA 01201  
(See also: Attachment A)**

to receiving waters named the

**Housatonic River, Unkamet Brook  
(Housatonic River Watershed)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit will become effective on December 1, 2008.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on September 30, 1988, which became effective on February 7, 1992, was modified on May 21, 1992, and expired on February 7, 1997.

This permit consists of 24 pages in Part I including effluent limitations, monitoring requirements, Attachments A (list of outfalls), B (toxicity protocol), C (Best Management Practices requirements), D (PCB method specification), E (Example Effluent Monitoring Summary Table) and 25 pages in Part II including Standard Conditions and Definitions.

Signed this 30<sup>th</sup> day of September, 2008

/s/ SIGNATURE ON FILE

\_\_\_\_\_  
Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

\_\_\_\_\_  
Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from the **64G** treatment system (which discharges through the outfall serial number 005 to the Housatonic River). The discharge consists of treated groundwater and city water (used for fire protection testing), treated water from storm sewer cleaning (see BMP 1 in Attachment C), and treated water generated as part of consent decree response actions. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected at a point that includes **the final effluent from the 64G treatment system**, prior to combining with other 005 flow components.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow <sup>*1</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Oil and Grease	mg/l	Report	—	Report	2/Month	Grab
TSS	mg/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab
PCBs, total <sup>*14,*15</sup>	ug/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
Volatile Organic Compounds (VOCs), total <sup>*20</sup>	ug/l	Report	—	Report	2/Month	Grab
Semivolatiles (SVOCs), total <sup>*20</sup>	ug/l	Report	—	Report	2/Month	Grab
Whole Effluent Toxicity, LC <sub>50</sub> <sup>*16</sup>	%	—	—	Report	1/Quarter <sup>*18,*19</sup>	24-Hour Composite <sup>*6</sup>
Whole Effluent Toxicity, IC <sub>25</sub> and C-NOEC <sup>*17</sup>	%	—	—	Report	1/Quarter <sup>*18,*19</sup>	24-Hour Composite <sup>*6</sup>

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E..

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfall serial number **005** to the Housatonic River. The discharge consists of treated effluent from the 64G treatment plant (see Part I.A.1. above for specific flow components) and treated groundwater and storm water from the 64T treatment plant. The discharge will be limited and monitored by the permittee as specified below<sup>\*4</sup>. Samples shall be representative of the discharge through outfall 005 to the Housatonic River<sup>\*5</sup>. When outfall 005 is flooded, the permittee may sample using flow proportioned samples from the 64T and 64G discharges.\*\*

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall/Precipitation <sup>*11,</sup>	inches	Report		Report	Continuous	Recorder
Flow <sup>*1</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Oil and Grease <sup>*5</sup>	mg/l	—	—	15	2/Month	Grab
Oil and Grease <sup>*5</sup>	lbs.day	—	—	135		
TSS <sup>*5</sup>	mg/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
TSS <sup>*5</sup>	lbs/day	188	—	270		
pH	st. units	(See Part I.A.footnote *21)			2/Month	Grab
PCBs, total <sup>*5, *14,</sup>	ug/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
PCBs, total <sup>*5,,</sup>	lbs/day	0.01	—	0.03		

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

\*\* The permittee shall note the days each month that the outfall is flooded on the outfall's monthly summary table.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning the effective date and lasting through expiration, during **dry weather** the permittee is authorized to discharge treated effluent from outfall serial number **005**, including treated groundwater from the 64G treatment plant and treated groundwater from the 64T treatment plant. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge through outfall 005 to the Housatonic River during **dry weather**.<sup>\*2</sup> When outfall 005 is flooded, the permittee may sample using flow proportioned samples from the 64T and 64G discharges.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow <sup>*4</sup>	MGD	Report	—	Report	Continuous	Recorder
Oil and Grease	mg/l	—	—	15	2/Month	Grab
TSS	mg/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A.footnote *21)			2/Month	Grab
PCBs, total <sup>*13, *15</sup>	ug/l	0.014	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
PCBs, total	lbs/day	Report	—	Report		
Volatile Organic Compounds (VOCs), total <sup>*20</sup>	ug/l	Report	—	Report	2/Month	Grab
Semivolatiles (SVOCs), total <sup>*20</sup>	ug/l	Report	—	Report	2/Month	Grab

Footnotes begin on page 14.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning the effective date and lasting through expiration, during **wet weather** the permittee is authorized to discharge treated effluent to the Housatonic River from outfall serial number **005**, including treated groundwater from the 64G treatment plant and treated groundwater and stormwater from the 64T treatment plant. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge through outfall 005 to the Housatonic River during **wet weather**.<sup>\*7</sup> When outfall 005 is flooded, the permittee may sample using flow proportioned samples from the 64T and 64G discharges.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall/Precipitation <sup>*12</sup>	inches	Report		Report	Continuous	Recorder
Flow <sup>4</sup>	MGD	Report	—	Report	Continuous	Recorder
Oil and Grease	mg/l	—	—	15	2/Month	Grab <sup>*9</sup>
TSS	mg/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab <sup>*9</sup>
PCBs, total <sup>*14</sup>	ug/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
PCBs, total	lbs/day	Report	—	Report		

Footnotes begin on page 14

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent through outfall serial number **05A** (an overflow from the 005 drainage system) to the Housatonic River **during wet weather**. The discharge consists of flow from the 64W oil/water separator, which includes groundwater (infiltration), city water (used for fire protection testing) and storm water. **Discharges during dry weather are prohibited**. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge through outfall 05A **during wet weather**.<sup>\*7</sup> Samples are not required when outfall 05A is flooded.\*\*

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall / Precipitation <sup>*12</sup>	inches	Report	—	Report	Per Discharge Event	Total
Flow <sup>*3</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Number of Activations <sup>*10</sup>	#	Report	—	—	Per Discharge Event	Observation
Oil and Grease	mg/l	—	—	15	1/Month	Grab <sup>*9</sup>
Oil and Grease	lbs/day	Report	—	Report		
TSS	mg/l	Report	—	Report	1/Month	Composite <sup>*8</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A. footnote *21)			1/Month	Grab <sup>*9</sup>
PCBs, total <sup>*14</sup>	ug/l	Report	—	Report	1/Month	Composite <sup>*8</sup>
PCBs, total	lbs/day	Report	—	Report		

Footnotes begin on page 14

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

\*\* The permittee shall note the days each month that the outfall is flooded on the outfall's monthly summary table.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent through outfall serial number **05B** (untreated overflow from the 005 drainage system) to the Housatonic River during **wet weather**. The discharge consists of untreated groundwater infiltration, city water (used for fire protection testing) and storm water to the Housatonic River. **Discharges during dry weather are prohibited.** The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharges and collected **during wet weather** conditions.<sup>\*7</sup>

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall/Precipitation <sup>*12</sup>	inches	Report	—	Report	Per Discharge Event	Total
Flow <sup>*3</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Number of Activations <sup>*10</sup>	#	Report	—	—	Per Discharge Event	Observation
Oil and Grease	mg/l	—	—	15	1/Month	Grab <sup>*9</sup>
TSS	mg/l	Report	—	Report	1/Month	Composite <sup>*8</sup>
pH	st. units	(See Part I.A.footnote *21.)			1/Month	Grab <sup>*9</sup>
PCBs, total <sup>*14</sup>	ug/l	Report	—	Report	1/Month	Composite <sup>*8</sup>

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for these discharges during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number **006** to the Housatonic River during **dry weather**, consisting of treated groundwater infiltration and city water (used for fire protection testing) from oil/water separator 64X. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge **during dry weather** conditions.\*<sup>2</sup>

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow* <sup>1</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow* <sup>4</sup>	MGD	Report	—	Report	Continuous	Recorder
Oil and Grease	mg/l	—	—	15	2/Month	Grab
TSS	mg/l	Report	—	Report	2/Month	24-Hour Composite* <sup>6</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A.footnote *21.)			2/Month	Grab
PCBs, total * <sup>13</sup>	ug/l	0.014	—	Report	2/Month	24-Hour Composite* <sup>6</sup>
PCBs, total	lbs/day	Report	—	Report	2/Month	
Volatile Organic Compounds (VOCs), total * <sup>20</sup>	ug/l	Report	—	Report	2/Month	Grab
Semivolatiles (SVOCs), total * <sup>20</sup>	ug/l	Report	—	Report	2/Month	Grab

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.



## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent through outfall serial number **006** to the Housatonic River during **wet weather**, including effluent from the 64X oil water separator, consisting of groundwater infiltration, city water (used for fire protection testing) and storm water to the Housatonic River. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected **during wet weather**.<sup>\*6</sup>

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall / Precipitation <sup>*12</sup>	inches	Report	—	Report	Per Discharge Event	Total
Flow <sup>*4</sup>	MGD	Report	—	Report	Continuous	Recorder
Oil and Grease	mg/l	—	—	15	2/Month	Grab <sup>*9</sup>
TSS	mg/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
TSS	mg/l	Report	—	Report		
pH	st. units	(See Part I.A.footnote *21.)			2/Month	Grab <sup>*9</sup>
PCBs, total <sup>*13</sup>	ug/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
PCBs, total	ug/l	Report	—	Report		

Footnotes begin on page 14

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

9. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfalls serial numbers **06A** and **SR05** (flows from the 006 drainage system that exceed the capacity of OWS64X and its related piping capacity) consisting of untreated groundwater infiltration, city water (used for fire protection testing) and storm water to the Housatonic River during **wet weather**. The discharges will be limited and monitored by the permittee as specified below. **Discharges during dry weather are prohibited.** Samples shall be representative of the discharge and collected **during wet weather.** <sup>\*7</sup>

Effluent Characteristic	Outfall	Units	Discharge Limitation			Monitoring Requirement	
			Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation <sup>*12</sup>	06A, SR05	inches	Report*	—	Report*	Per Discharge Event	Total
Flow <sup>*4</sup>	SR05	MGD	Report	—	Report	Per Discharge Event	Recorder
Flow <sup>*3</sup>	06A	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	06A	MGD	Report	—	Report		
Number of Activations <sup>*10</sup>	06A, SR05	#	Report	—	—	Per Discharge Event	Observation
Oil and Grease	06A	mg/l	Report	—	15	1/Month	Grab <sup>*9</sup>
TSS	06A	mg/l	Report	—	Report	1/Month	Composite <sup>*8</sup>
TSS	06A	lbs/day	Report	—	Report		
pH	06A	st. units	(See Part I.A. footnote <sup>*21</sup> .)			1/Month	Grab <sup>*9</sup>
PCBs, total <sup>*14</sup>	06A	ug/l	Report	—	Report	1/Month	Composite <sup>*8</sup>
PCBs, total	06A	lbs/day	Report	—	Report		

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for these discharges during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 10 During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from internal outfall **09B** (discharge from oil/water separator 119W which discharges through outfall serial number **009**) to Unkamet Brook. The discharge includes city water (used for fire protection testing), ground water infiltration, and storm water. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge from OWS 119W<sup>\*5</sup>.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Rainfall/Precipitation <sup>*12</sup>	inches	Report		Report	Continuous	Recorder
Flow <sup>*1</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Oil and Grease <sup>*5</sup>	mg/l	—	—	15	2/Month	Grab
Oil and Grease <sup>*5</sup>	lbs/day	—	—	438		
TSS <sup>*5</sup>	mg/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
TSS <sup>*5</sup>	lbs/day	213	—	876		
pH	st. units	(See Part I.A.footnote *21.)			2/Month	Grab
PCBs, total <sup>*14</sup>	ug/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
PCBs, total	lbs/day	Report	—	Report		

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

11. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated and untreated effluent from outfall serial number **009** to Unkamet Brook, including city water (used for fire protection testing) and ground water infiltration, to Unkamet Brook during **dry weather**. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected during **dry weather** <sup>\*2</sup> at sampling point 009 (the combined discharges from OWS 119W and flow bypassed around OWS 119W).

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow <sup>*1</sup>	MGD	Report	—	Report	Continuous	Recorder
Flow <sup>*4</sup>	MGD	Report	—	Report		
Oil and Grease	mg/l	Report	—	15	2/Month	Grab
TSS	mg/l	Report	—	Report	2/Month	24-Hour Composite <sup>*6</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab
PCBs, total <sup>*13</sup>	ug/l	0.014	—	Report	2/Month	Grab
PCBs, total	lbs/day	Report	—	Report		

Footnotes begin on page 14.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

12. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated and untreated effluent from outfall serial number **009** to Unkamet Brook **during wet weather**, including city water (used for fire protection testing), ground water infiltration, and storm water. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected **during wet weather**<sup>\*7</sup> at sampling point 009 (the combined discharges from OWS 119W and flow bypassed around OWS 119W).

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow <sup>*4</sup>	MGD	Report	—	Report	Continuous	Recorder
Oil and Grease	mg/l	—	—	15	2/Month	Grab <sup>*9</sup>
TSS	mg/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
TSS	lbs/day	Report	—	Report		
pH	st. units	(See Part I.A.footnote *21)			2/Month	Grab <sup>*9</sup>
PCBs, total <sup>*14</sup>	ug/l	Report	—	Report	2/Month	Composite <sup>*8</sup>
PCBs, total	lbs/day	Report	—	Report		

Footnotes begin on page 14.

## Footnotes:

- \*1 Report the average monthly and maximum daily flows.
- \*2 Dry weather is defined as any day on which less than 0.1 inches of total precipitation falls and no snow melt occurs.
- \*3. Report the monthly average and maximum daily flows. The monthly average flow is defined as the average flow per day of discharge.
- \*4 Report the average monthly and maximum daily flows for the day(s) that PCB samples were taken.
- \*5 This sampling will determine compliance with technology-based limits. The sampling shall be conducted as part of a routine sampling plan, in which samples are collected on the same day(s) of the month without regard to weather conditions. If the weather on the day of the sampling meets the definition of a dry weather day, the collected data may be used towards satisfying the dry weather monitoring requirements for the outfall.
- \*6 A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day (e.g., 7 a.m. Monday - 7 a.m. Tuesday). For intermittent discharges, the number of hourly grab samples may be reduced to correspond to the period of discharge.
- \*7. Wet weather is defined as any day on which more than 0.1 inches of total precipitation falls or on which snow melt occurs, and the interval from the preceding measurable storm is at least 24 hours. The 24-hour storm interval is waived when the preceding measurable storm did not yield a measurable discharge, or if the permittee is able to document that less than a 24 hour interval is representative for local storm events during the sampling period.
- \*8. Wet weather composite sampling shall be done on a wet weather day. The permittee will collect flow proportioned samples over the duration of the storm (or collect samples at equal time intervals and combine them proportional to flow) and shall collect the first aliquot within the first 30 minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, the permittee will sample during the first hour of discharge and describe why collecting a grab sample during the first 30 minutes was impracticable. The permittee will submit this information with the discharge monitoring report.
- \*9. Wet weather grab samples shall be taken during the first 30 minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, the permittee will sample during the first hour of discharge and describe why collecting a grab sample during the first 30 minutes was impracticable. The permittee will submit this information with the discharge monitoring report.
- \*10 Report the number of calendar days during the month that the outfall discharged.
- \*11. The permittee will maintain a rainfall rain gauge on-site when the air temperature is above freezing, and will report the National Weather Service data for Pittsfield, MA, when the air temperature is below freezing. Report on the DMR the average and daily maximum precipitation

that fell on the days PCB samples were taken.

- \*12. The average and daily maximum precipitation that fell on the days that sampling occurred shall be reported on the DMR
- \*13. The total PCB monthly average compliance limit for this discharge is set at 0.065 ug/l, and the minimum level (ML) is defined as 0.065 ug/l. The permittee will: (1) use Modified Method 8082, attached to this permit as **Attachment D**, (2) meet all the specifications within **Attachment D**, (3) make every effort to achieve a minimum detection level (MDL) of 0.014 ug/l using Modified Method 8082, and (4) provide the result of total PCBs as the sum of all Aroclors. Sample results less than 0.065 ug/l shall be reported as zero on the discharge monitoring report; numerical results of all samples, including results less than the ML, shall be reported in an attachment to the discharge monitoring report (DMR).
- \*14. The total PCB minimum level (ML) for total PCBs is defined as 0.065 ug/l. The permittee will: (1) use Modified Method 8082, attached to this permit as **Attachment D**, (2) meet all the specifications within **Attachment D**, (3) make every effort to achieve a minimum detection level (MDL) of 0.014 ug/l using Modified Method 8082, and (4) will provide the result of total PCBs as the sum of all Aroclors. Sample results less than 0.065 ug/l shall be reported as zero on the discharge monitoring report; numerical results of all samples, including results less than the ML shall be reported in an attachment to the discharge monitoring report (DMR).
- \*15. Interim requirements and a schedule for attaining an effluent minimum level concentration of (0.065 ug/l) may be found in Section D of this permit.
- \*16. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) will cause no more than a 50% mortality rate.
- \*17. C-NOEC (chronic-no observed effect concentration) and the IC<sub>25</sub> concentrations are defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results exhibit a non-linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect.
- \*18. The permittee will: (1) conduct chronic (and modified acute) toxicity tests quarterly, (2) test the daphnid, Ceriodaphnia dubia in accordance to the schedule in the table below, (3) calculate the percent minimum significant difference (PMSD) as defined within the 2002 EPA National Toxicity Guidance Document (i.e., a measurement of the test's sensitivity), (4) calculate and report both the IC<sub>25</sub> and C-NOEC endpoints, and (5) select and report as the final test endpoint that which most closely represents the appropriate test result based on the interpretation of the dose response curve (refer to EPA 821-B-00-004, July 2000, Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)). The tests must be performed in accordance with test procedures and protocols specified in **Attachment B** of this permit.

Test Dates: Second Week in	Submit Results By:	Test Species:	Acute Limit: LC <sub>50</sub>	Chronic Limit: C-NOEC and IC <sub>25</sub>
March June September December	April 30 <sup>th</sup> July 31 <sup>st</sup> October 31 <sup>st</sup> January 31 <sup>st</sup>	<u>Ceriodaphnia dubia</u> (Daphnid)	Report	Report

After submitting **two years** of WET test results, all of which demonstrate an IC25 of 100%, the permittee may request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

- \*19. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee will follow procedures outlined in **Attachment B** Section IV, DILUTION WATER in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment B**, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called “Guidance Document”) which may be used to obtain approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee will revert to obtaining approval as outlined in **Attachment B**. The “Guidance Document” has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA’s Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this “Guidance Document” will be transmitted to the permittee as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.
- \*20. Report all volatile organic compounds and semivolatile organic compounds detected using EPA Method 624 and attach the results to the discharge monthly reports.
- \*21. The pH of the effluent will not be less than 6.5 or greater than 9.0 at any time, unless these values are exceeded due to natural causes.



## PART I.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

13. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge uncontaminated groundwater and storm water from the following outfall serial numbers: YD10, YD11, and YD12 (discharges to Unkamet Brook), YD6, YD7, YD8, YD9, YD13, YD14, and YD16 (discharges to the Housatonic River). Discharges during dry weather are prohibited.

For one year from the effective date of the permit, the permittee must inspect the authorized outfalls once per month during dry weather. If discharges are occurring, the flow rate must be estimated and grab samples collected for pH, TSS, and PCBs (using Modified Method 8082). A summary of these inspections, including all monitoring data, must be attached to the DMR. Based on the sampling results, EPA may extend this monitoring requirement via certified letter or reopen the permit to include effluent limitations on dry weather discharges.

Wet weather monitoring of the authorized outfalls must be conducted as required in Part C.2.b.

The following five requirements (Parts I.A.14.-18.) apply to all discharges at this site:

14. The discharge will not cause objectionable discoloration of the receiving waters.
15. The effluent will contain neither a visible oil sheen, foam, nor floating solids at any time.
16. The permittee will demonstrate adequate laboratory controls and appropriate quality assurance procedures, in accordance with 40 C.F.R. § 122.41(e).
17. All samples and measurements taken for the purpose of monitoring will be representative of the monitored activity, in accordance with 40 C.F.R. § 122.41(j).
18. The discharge will not cause or contribute to an exceedance of the instream temperature requirements under 314 CMR 4.05(3)(b)2 of the Massachusetts Water Quality Standards.
19. All existing manufacturing, commercial, mining, and silvaculture dischargers must notify the Director as soon as they know or have reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) One hundred micrograms per liter (100 ug/l);
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
    - (4) The level established by the Director in accordance with 40 C.F.R. § 122.44(f).
  - b. That activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
    - (1) Five hundred micrograms per liter (500 ug/l);
    - (2) One milligram per liter (mg/l) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
    - (4) The level established by the Director in accordance with 40 C.F.R. § 122.44(f).
  - c. That the permittee has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
- 20. Except as part of treatment plant operations at the 64G and 64T treatment plants, the permittee shall not add chemicals to any of the discharges at the facility.
- 21. This permit may be modified, or revoked and reissued, on the basis of new information in accordance with 40 CFR § 122.62.
- 22. Toxics Control
  - a. The permittee will not discharge any pollutant or combination of pollutants in toxic amounts.
  - b. Any toxic components of the effluent will not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards
- 23. Numerical Effluent Limitations for Toxicants

EPA or the MassDEP may use the results of the toxicity tests and chemical analysis conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 C.F.R. § 122.
- 24. Floor Drains

**Within ninety (90) days** of the effective date of the permit, the permittee must: (1) verify the location of each floor drain at active operations buildings at the GE Pittsfield site (e. g., Building 100), and (2) permanently remove or seal those floor drains within the building that do not directly discharge to the sewer system. **Within one hundred and eighty (180) days** of the effective date of the permit, the permittee must: (1) verify the location of each floor drain at inactive operations buildings at the GE Pittsfield site that are not otherwise scheduled for demolition under the Brownfields Program (i.e., Buildings 7, 9, 9B, 10, 12, 12T, 14, 52, 53, 64, 78, 106, 107, 108, 119, 121), and (2) permanently remove or seal those floor drains within each of these buildings that do not directly discharge to the sewer system. Office buildings are not subject to the terms of this requirement. In addition, other buildings scheduled for future demolition under the Brownfields Program are not subject to the terms of this requirement.

## **B. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in **Attachment A** of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and will be reported in accordance with Part II. Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).

To ensure that all point source discharges of pollutants owned or operated by the permittee are included in the permit, the permittee shall complete a survey of its site to confirm that there are no point source discharges of pollutants from its site that are not included in the permit. This survey shall evaluate whether there are any pipes, ditches, swales, or other discrete conveyances that discharge pollutants either directly to waters of the United States or to conveyance systems owned and operated by others that discharge to waters of the United States. A report of the survey, including a map showing any additional discharges, including flow components (e.g. storm water, groundwater infiltration), estimated flows, and sampling for TSS and PCBs shall be submitted to MassDEP and EPA **within 120 days of the effective date of the permit**.

## **C. BEST MANAGEMENT PRACTICES**

1. The permittee must implement the Best Management Practices (BMP) requirements upon the effective date of the permit, which include: (1) BMPs described in **Attachment C**, and (2) the Storm Water Pollution Prevention Plan (SWPPP) described below. When the permit becomes effective, all of the BMP requirements will be enforceable.
2. The permittee must maintain and implement a storm water pollution prevention plan (SWPPP) for storm water runoff areas discharging to point sources authorized by this permit. The permittee's storm water discharges are subject to the best management practices established in the permittee's Storm Water Pollution Prevention Plan (SWPPP) and as described in **Attachment C**. The permittee must submit an updated SWPPP to EPA and the MassDEP **within 6 (six) months** of the effective date of this permit. The updated SWPPP must be implemented **within 60 (sixty) days** of

the submittal date, along with any modifications that are agreed upon by EPA, MassDEP and GE. The plan shall be updated annually and a copy submitted to EPA and MassDEP by **March 1** each year.

- a. The contents of the SWPPP must meet all of the requirements of Section 4 of the Storm Water Multi-Sector Permit for Industrial Activities, and must also include up-to-date mapping of the storm water collection system, showing all storm water collection pipes, pipe type (e.g. concrete, clay, perforated) pipes sizes, connections, manhole locations, and treatment units. The SWPPP must also include routine inspections of active and plugged outfalls to ensure the integrity of the seals on plugged outfalls to ensure that storm drains not authorized to discharge during dry weather are not discharging under those conditions, and to ensure that there is no breakout of groundwater in the vicinity of the outfalls.
- b. The permittee must include within their SWPPP, a plan for sampling all of the storm water discharges listed under Part I.A.13. of this permit **once each year**. At a minimum the following parameters must be sampled: average and peak flow, oil and grease, PCBs (using Modified Method 8082), TSS, and zinc (pollutant samples shall be all collected as storm duration flow composite samples, see footnote \*8 in Part I.A.).
3. The permittee must attach all BMP sampling results to their monthly discharge monitoring reports (includes "**Attachment C**" and **SWPPP** requirements.)
4. By **March 1 of each year**, the permittee must submit a report to MassDEP and EPA summarizing the activities conducted under the BMP and SWPPP during the previous year, including the submittal of any storm water sampling performed during the year which was not previously submitted.

## D. COMPLIANCE SCHEDULE

### 1. PCB Limits and Capability Studies

To achieve compliance with the dry weather discharge monthly average PCB effluent limitation for outfall 005 (0.014 ug/l), the permittee shall complete the activities in the following compliance schedule. Interim effluent limitations for dry weather discharges through outfall 005 are included in the schedule. The PCB interim compliance limit for the dry weather discharge from outfall 005 shall be a monthly average total PCBs concentration of 0.15 ug/l until compliance with the ML (0.065 ug/l) is achieved in accordance with the schedule set forth below. Total PCBs will be measured using the Modified Method 8082 (protocol attached to the permit as "**Attachment D**"), with a minimum detection level of approximately 0.014 ug/l.

**Within 9 months** following the effective date of the permit, GE shall complete a PCB treatment capability study of the 64G treatment system which will evaluate whether the existing facility is capable of achieving a monthly average limit of 0.065 ug/l.

**Within 9 months** following the effective date of the permit, the permittee shall complete a dry weather discharge monitoring program and treatment plant capability study for treatment plant

64T that demonstrates whether the dry weather discharge from this facility achieves the final PCB compliance limit of 0.065 ug/l. This study shall include continuous flow measurement of outfall 64T and at least twice per month dry weather sampling of PCBs (using modified method 8082), oil and grease, TSS and pH. These data shall be attached to the permittee's DMR submittal each month. A summary report shall be submitted to EPA and MassDEP **within 10 months of effective date of the permit**. The summary report shall include a summary of the collected effluent data, a description of any modifications made to the 64T treatment plant during the study period and a determination whether 64T treatment plant can consistently achieve an effluent PCB concentration of 0.065 ug/l during dry weather.

**Following completion of the 64G PCB treatment capability study and the 64T dry weather monitoring program/capability study**, the discharge limit will be established as follows:

- If 64G monitoring data and the 64T dry weather monitoring data required above each demonstrate a 100% capability of achieving a monthly average limit of 0.065 ug/l, the deadline for attaining the monthly average total PCB limit of 0.065 ug/l for outfall 005 during dry weather shall be **30 days** after the submittal of the required reports\*\*. Compliance capability will be determined using EPA's modified delta log normal method.
- If either the 64G or 64T do not demonstrate a 100% compliance capability with a monthly average limit of 0.065 ug/l, then the interim compliance limit will remain at 0.15 ug/l until GE upgrades the 64G and/or 64T facilities to achieve a monthly average PCB concentration of 0.065 ug/l in accordance with the treatment capability studies. Any treatment capability study shall include a plan and schedule pertaining to treatment facility upgrades and/or dry weather flow reductions, subject to EPA and MassDEP approval, for achieving the average limit of 0.065 mg/l as soon as possible in accordance with 40 C.F.R. § 122.47. Any such schedule shall include interim status reports on the progress toward achieving the limit at six (6) month intervals, calculated from the date the treatment capability is submitted. GE shall comply with the 0.065 ug/l average limit on outfall 005 during dry weather **30 days** after the date required to complete the upgrade(s).

\*\* If subsequent actions undertaken by GE to meet groundwater or NAPL-related Performance Standards or other requirements of the Consent Decree require a significant increase in the 64G treatment plant flow rates above the flow rates that occurred during the 64G treatment plant capability study, and if EPA's On-Scene Coordinator concurs that the increased flows are from such Consent Decree work, then GE must meet an interim compliance limit of 0.15 ug/l for the period during which such increased flow rates are necessary. GE must comply with the interim limit during the period of increased flows, and shall endeavor to achieve a goal of a monthly PCB concentration of 0.065 ug/l. At the end of the period of increased flows, the final limit of 0.065 ug/l shall again apply.

## 2. Optimization Study and Improvements

**Following completion of the 64G and 64T PCB treatment capability studies and achievement of the final PCB compliance limit of 0.065 ug/l** (as described in item 1 of this

section), GE shall commence a PCB treatment optimization study of the 64G treatment system. The optimization study shall evaluate further enhancements of the treatment plant, with the goal of further reducing the discharge of PCBs to the detection limit (MDL) of 0.014 ug/l.

This study shall evaluate the cost and effectiveness of enhancement alternatives including:

- Operational adjustments to the existing treatment plant, including increased frequency of activated carbon replacement.
- Additional or different activated carbon columns.
- Enhance treatment prior to activated carbon columns.
- Filtration following activated carbon columns.

**Within 18 months** of the effective date of the permit, or 9 months after the date on which GE completes any 64G or 64T treatment capability enhancements necessary to achieve a total PCB limit of 0.065 ug/l (as described in item 1 of this section), whichever is later, GE shall report the results of the optimization study to EPA and MassDEP. The report shall document the findings of the study and provide a recommended enhancement alternative(s) that will result in effluent concentration less than the MDL of 0.014 ug/l. The plan shall also include an implementation schedule for completing the enhancements and shall document the capital costs for, and the estimated reduction in PCBs that would be achieved by those enhancements. GE shall implement the recommended enhancements in accordance with the schedule proposed in the optimization study report, subject to EPA and MassDEP approval, for achieving the monthly average limit of 0.014 mg/l at outfall 005 under dry weather conditions as soon as possible in accordance with 40 C.F.R. § 122.47.

#### **E. AMBIENT MONITORING PLAN**

By one year from the effective date of the permit, the permittee shall develop and submit to EPA and MassDEP an ambient monitoring plan designed to show the effect of its wet weather discharges on water quality in the designated receiving waters. The plan shall include at least two rounds of wet weather ambient sampling per year and shall include sampling stations in the Housatonic River and Unkamet Brook upstream and downstream of its authorized discharges and from other instream sampling stations sufficient to determine the impact of each authorized discharge on instream water quality. The instream sampling shall coincide with wet weather sampling from the wet weather discharges authorized by this permit.

The plan shall be implemented in the second year of the permit and be conducted each year thereafter.

#### **F. PERMIT REOPENER**

The results of sampling required by the permit and the results of the ambient water quality monitoring program shall constitute new information within the meaning of 40 C.F.R. § 122.62(a)(2) and shall be assessed by EPA during the term of the permit. If the results demonstrate that the permit as written is insufficiently stringent to comply with applicable water quality standards for toxics, including PCBs, EPA shall re-open and modify the permit's terms to

impose additional BMPs and/or numeric effluent limitations sufficient to ensure compliance with such water quality standards.

## G. MONITORING AND REPORTING

### 1. Reporting

Monitoring results obtained during each calendar month will be summarized and reported on Discharge Monitoring Report Form(s) postmarked no later than the **28<sup>th</sup> day of the following month.**

Signed and dated originals of these, and all other reports required herein, will be submitted to the Director and the State at the following addresses:

Environmental Protection Agency  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection  
Western Regional Office - Bureau of Resource Protection  
436 Dwight Street  
Springfield, MA 01103

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit will also be submitted to the State at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

## H. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions of this Permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap.21, §43.

Each Agency will have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit will be effective only with respect to the Agency taking such action, and will not affect the validity or status of this Permit as issued by the other Agency,

unless and until each Agency has concurred in writing with such modification, suspension or revocation.

In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit will remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit will remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.